

IN THE CLAIMS

The status of each claim in the present application is listed below.

1. (Currently Amended) A method for detecting negatively supercoiled DNA on interphase chromosomes in intact living cells, comprising characterized by including the steps of incorporating biotinylated psoralen into intact living cells, irradiating the living cells with long-wavelength UV rays, causing the cells to react with adinin which has been labeled with a color-developing substance, a fluorescent substance, or a chemiluminescent substance, and measuring developed color, emitted fluorescence, or emitted chemiluminescence of the cells.

2. (Currently Amended) A method for detecting an intact a-living cell containing negatively supercoiled DNA on interphase chromosomes, comprising characterized by including the steps of incorporating biotinylated psoralen into intact living cells, irradiating the cells with long-wavelength UV rays, causing the cells to react with adinin which has been labeled with a color-developing substance, a fluorescent substance, or a chemiluminescent substance, and measuring developed color, emitted fluorescence, or emitted chemiluminescence of the cells.

3. (Original) The detection method according to claim 1 or 2, wherein the cells are eukaryotic cells.

4. (Previously Presented) The detection method according to claim 1, wherein incorporation of biotinylated psoralen into cells is performed in the presence of a cell membrane permeation promoting agent.

5. (Previously Presented) The detection method according to claim 2, wherein incorporation of biotinylated psoralen into cells is performed in the presence of a cell membrane permeation promoting agent.

6. (Previously Presented) The detection method according to claim 3, wherein incorporation of biotinylated psoralen into cells is performed in the presence of a cell membrane permeation promoting agent.

Claim 7: (Canceled).